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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,531	07/21/2005	Bertrand Bertin Mourot	263950US0PCT	9646

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314		

EXAMINER	
NGUYEN, THONG Q	

ART UNIT	PAPER NUMBER
2872	

NOTIFICATION DATE	DELIVERY MODE
01/10/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

**Office Action Summary**

Application No.

10/518,531

Applicant(s)

BERTIN MOUROT ET AL.

Examiner

Thong Q. Nguyen

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13, 17-21, 23, 25-27 and 33-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 17-21, 23, 25-27 and 33-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. The present Office action is made in response to the amendment filed on 10/15/2007. It is noted that in the amendment, applicant has made changes to the drawings, the specification and the claims.
2. Regarding to the claims, applicant has amended claims 1-13, 17-21, 23, 27, and 33-35 and canceled claims 14-16, 22, 24 and 28-32. There is not any claim being added. The remaining claims are claims 1-13, 17-21, 23, 25-27 and 33-35 which are examined in this Office action.

### ***Drawings***

3. The drawings contained eight new sheets of figures 1-8 were received on 10/15/07. These drawings are approved by the examiner.

### ***Specification***

4. The lengthy specification which was amended by the amendment of 10/15/07 has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
5. The specification is objected to because it does not have headlines such as background of the invention, Summary of the invention, etc.. for the purpose of providing a clear framework of the specification. Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of utility application. These guidelines are suggested for the applicant's use.

### Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(I) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A

"Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required

"Sequence Listing" is not submitted as an electronic document on compact disc).

*It is noted that in response to the objection to the specification as set forth in the previous Office action, pages 4-5, element (6), applicant has made changes to the specification, see amendment, page 2. However, the changes to the specification as provided in the amendment of 10/15/07 are not sufficient. For instance, applicant has added a section of "BRIEF DESCRIPTION OF THE DRAWINGS" at page 3, line 28, and a headline thereof "DETAILED DESCRIPTION OF THE INVENTION" at page 5, line 31; however, the specification still does not have a Summary of the Invention, and the section of "BRIEF DESCRIPTION OF THE DRAWINGS" now contains details of the invention as can be seen on pages 3-5.*

6. The objection to the specification as failing to provide proper antecedent basis for the claimed subject matter of claim 27 is now withdrawn. Applicant's arguments provided in the amendment, page 9, have been fully considered and found persuasive. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

#### ***Claim Objections***

7. The objections to claims 3, 5-7, 17-18, and 20-24 as set forth in the previous office action are overcome by the amendments to the claims as provided in the amendment of 10/15/07.

8. Claims 9-11, 13, 17, 20-21, 23, and 25-26 are objected to because of the following informalities. Appropriate correction is required.

a) In claim 9: on line 3, the feature thereof "the mineral particles" lacks a proper antecedent basis. Applicant should note that while base claim 1 recites a mineral particle layer, see claim 1, line 2; however, the claim has not recited that the layer comprises mineral particles. Should the phrase thereof "the binder allows the mineral particles to be agglomerated with one another" (claim 9, lines 2-3) be changed to --the mineral layer comprises mineral particles and a binder wherein the binder allows the mineral particles to be agglomerated with one another-- (see specification, page 4, lines 29-31)?

b) In each of claims 10 and 11: on line 2 of each claim, "the mineral particle comprises" should be changed to --the mineral particles comprise-- or --each of the mineral particle comprises--. See claim 9, on line 3.

c) In claim 13: on line 2, the feature thereof "the mineral particle layer comprises F:SnO<sub>2</sub> or ITO" is misdescriptive of the invention as taught in the specification. Applicant should note that the specification discloses that the particles are based on F:SnO<sub>2</sub> or ITO, see specification in page 4, line 37. The specification does not disclose that the mineral layer comprises F:SnO<sub>2</sub> or ITO as claimed. should the terms thereof "the mineral particle layer comprises" appeared in claim 13, line 2 be changed to --the mineral particles comprise-- ?

d) Regarding claim 17, the terms "an antistatic function, an antistatic function" (line 4) should be changed to --an antistatic function-- or --an antistatic function, an antifogging function--. See specification in page 5, lines 4-8, for example.

e) In each of claims 20-21, and 23: the method for producing a manufacture by combining or adding a glass substrate with/to light source(s) is unclear. What does applicant mean by "manufacture" in the claim. Should the terms thereof "A method for producing a manufacture" appeared on line 1 of each claim be changed to --A method for forming an optical system-- or other technical terms to make clear the feature claimed?

It is also suggested that the following terms --the step of-- should be added before "combining" (claim 20, line 3) or before "adding" (each of claims 21 and 23, line 2 of each claim).

f) Claim 25: on lines 1-2, the feature thereof "the diffusing substrate" lacks a proper antecedent basis. Should the term "diffusing" appeared on the mentioned feature be deleted? See claim 1, lines 1-3.

g) Claim 26: on-line 2, the feature "the deposition surface" lacks a proper antecedent basis. Should the term "the" be changed to --a--?

***Claim Rejections - 35 USC § 112***

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-13, 17-21, 23, 25-27 and 33-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 1 is rejected under 35 USC 112, second paragraph because the structure of the device as claimed in the feature thereof "A glass substrate...greater than 100 " (lines 1-3) is not supported or misdescriptive of the invention as disclosed in the present specification. Applicant is respectfully invited to review the invention as provided in pages 4-5 of the application. In other words, the specification discloses an optical element comprises a diffusing layer deposited on a substrate and an electromagnetic insulating element being deposited as close as possible to the diffusing layer. The specification does not disclose that the substrate comprises a diffusing layer and an electromagnetic insulating element as claimed. It is the examiner's opinion that the terms thereof "A glass substrate comprising a diffusing layer comprising a mineral particle layer comprising a mineral binder and" appeared on lines 1-2 of the claim should be changed to --An optical element comprising a glass substrate, a diffusing layer comprising a mineral particle layer comprising a mineral binder, and-- to make the feature claimed having support from the specification and thus comply with the requirement of 35 USC 112, second paragraph.

Applicant should also note any change to claim 1 should require a necessary change to each of its dependent claims for the purpose of providing a proper



antecedent basis for the correspond feature recited in each of the dependent claims.

b) Claim 19 is misdescriptive of the invention as taught in the specification by the recitation thereof "The glass substrate as claimed in claim 1, wherein it has a thickness of between 0.5  $\mu\text{m}$  and 5  $\mu\text{m}$ " (claim 19, lines 1-2). Applicant should note that the specification discloses that the diffusing layer, not the substrate, has such a dimension. See specification in page 5, lines 25-26. Should the term "it" appeared on line 2 of the claim be changed to –the diffusing layer--?

c) The remaining claims are dependent upon the rejected base claim and thus inherit the deficiencies thereof.

***Claim Rejections - 35 USC § 103***

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claims 1-5, 7-11, 17-21, 23 and 25-27, as best as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Jinnai et al (EP 1 083 445, of record) in view of Marzolin et al (WO 01/90787, submitted by applicant).

Jinnai et al disclose a diffuser device. The device as described in pages 11-16 comprises a light scattering sheet laminated over a transparent conductive layer wherein the light scattering layer comprise a transparent resin having particles dispersed therein and the transparent conductive layer has a resistance in the range of 10 to 1000 ohm per square. See sections [0070]-[0072] and [0092]. The diffuser device also comprises the following features: a) The transparent conductive layer is a layer

constituted of an electrically conductive inorganic compound which inorganic compound can have transparent or translucent characteristic. See sections [0090] and [0074]; b) the light scattering sheet is comprises of a light scattering layer and a substrate sheet wherein the transparent conductive layer is deposited on the light scattering layer. See sections [0093] and [0114] and fig. 4; c) the substrate can be glass or polymers. See sections [0054]-[0057] and [0120]; d) the transparent conductive layer can be arranged on one side of a substrate or directly attached to the light scattering layer which is understood as an incorporated manner with the light scattering layer. See section [0093]; e) The light scattering layer is made by a binder of resin such as polycarbonate, see section [0059], and the particles are dispersed in the binder wherein the particles is made by metal oxide such as zirconium oxide. See sections [0072]-[0077]; f) One surface of the light scattering layer could be coated by an antistatic layer or an antifogging layer. See sections [0097]-[0098] and [0094]; g) the light scattering device has a light transmission greater than 50%. See section [0096] and claim 11; h) The light scattering device is used in a liquid crystal system which is understood comprises a light source and other optical elements. See section [0114]; i) the thickness of the transparent conductive layer is in the range of  $100 \times 10^{-8}$  cm to  $2000 \times 10^{-8}$  cm or 0.01 to 0.2 micrometer, see section [0091] and the thickness of the light scattering layer is similar to that of the transparent conductive layer, see section [0099], thus the total thickness of the light scattering layer and the light conductive layer is in the range claimed. Regarding to the method claimed as recited in present claims 20-21, 23, and 25-26, such method steps are inherently resulted of the device as tight by Jinnai et al

because Jinnai et al clearly disclose the use of a liquid crystal system having a backlight system having at least one light source, a liquid crystal cell, filter, light scattering device, polarizer, ... See section [0107] and fig. 4, for example.

The only feature missing from the diffusing device as provided by Jinnai et al is that they does not explicitly disclose that the diffusing layer comprises a mineral binder as claimed. However, the use of a mineral binder for the diffusing layer as claimed is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present specification in pages 4, 6, 7, 8, ...in which applicant has clearly disclosed that the binder of the diffusing layer can be an organic binder. See specification, page 4, lines 38-39; page 6, lines 30-35, ...for example. It is also noted that the use of a mineral binder in place of an organic binder in a diffusing element is known to one skilled in the art as can be seen in the diffusing element provided by Marzolin et al. In particular, Marzolin et al disclose a diffusing element having a layer comprises a binder and a plurality of particles wherein the binder is a mineral binder or an organic binder. See page 4, lines 21+ and page 7, lines 4+. It is also noted that it was decided in the Courts that a selection of a known material on the basis of its suitability for the intended use would have been obvious to one skilled in the art as a matter of obvious design choice. See *In re Leshin*, 125 USPQ 416. Thus, absent any showing of criticality, it would have been obvious to one skilled in the art at the time the invention was made to modify the device provided by Jinnai et al by using a diffusing element having a mineral binder instead of a n organic binder as suggested by

Marzolin et al for the purpose of obtaining a device having better ability of resistance to high temperature.

13. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jinnai et al in view of Marzolin et al.

The combined product as provided by Jinnai et al and Marzolin et al does not explicitly state that the transparent conductive layer is located between the substrate and the light scattering layer as claimed in present claim 6. However, such an arrangement of the transparent conductive layer with respect to the substrate and the light scattering layer as claimed is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present specification, see page 4 in which applicant has disclosed that the conductive layer is located on one side of a substrate opposite to the light scattering element. It is also noted that the arrangement of the conductive layer is located on one side of a substrate opposite to the light scattering element is indeed claimed as can be seen in the present claim 7. It is also noted that it was decided in the Courts that a rearrangement of parts of an invention involves only routine skill in the art. See *In re Japikse*, 86 USPQ 70. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the light scattering device as provided by Jinnai et al by rearrangement the light conductive layer with respect to the substrate of the light scattering element including the arrangement of the light conductive layer

between the substrate and the light scattering layer for the purpose of adjusting the light distribution for satisfying a particular application.

14. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jinnai et al in view of Marzolin et al as applied to claim 9 above, and further in view of Suzuki et al (U.S. Patent No. 6,033,743, of record).

The light scattering device comprises a transparent resin in which particles are dispersed as provided by Jinnai et al and Marzolin et al does not disclose that the size of the particle is in the range of 50 nm to a micro as claimed in claim 12 and the material of the particle is ITO as claimed in claim 13. However, the use of a light control sheet made by resin having particles dispersed therein in which the particles is made by ITO or ZrO<sub>2</sub> and has its diameter in the range of 3 to 20 nm is known to one skilled in the art as can be seen in the light control sheet provided by Suzuki et al. See column 6, lines 51-57 for the material of the particles and see column 7, lines 1-3 for the dimension of the particles. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the device as provided by Jinnai et al and Marzolin et al by using a light scattering element having particles with small dimension and made by Ito as suggested by Suzuki et al for the purpose of adjusting the light transmission of light passing through the light scattering element.

15. Claims 33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jinnai et al in view of Marzolin et al as applied to claim 1 and further in view of Hasegawa (U.S. Patent No. 5,461,279, of record).

The diffusing device as provided by Jinnai et al and Marzolin et al is a diffuser device for a backlight. However, they do not clearly state that the diffuser device is used with a lamp. However, the use of a flat lamp having a diffuser device attached thereto is known to one skilled in the art as can be seen in the system provided by Hasegawa. For instance, in column 2 and fig. 5, Hasegawa discloses a flat fluorescent map for use with a liquid crystal device wherein the lamp comprises conductive elements (14) and a diffuser element (22) is attached to the lamp. Thus, it would have been obvious to one skilled in the art at the time the invention was made to utilize the diffuser device as provided by Jinnai et al and Marzolin et al by attached it to a lamp as suggested by Hasegawa for the purpose of providing diffusing illumination to the liquid crystal device.

### ***Response to Arguments***

16. Applicant's arguments with respect to claims 1-35, now applied to claims 1-13, 17-21, 23, 25-27 and 33-35 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

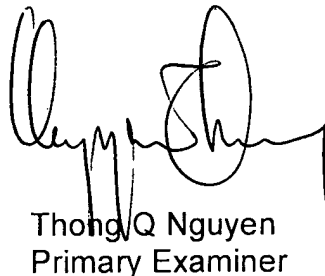
18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on (571) 272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:  
10/518,531  
Art Unit: 2872

Page 15

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Thong Q Nguyen', is positioned above the printed name and title.

Thong Q Nguyen  
Primary Examiner  
Art Unit 2872

\*\*\*



OBLON ET AL (703) 413-3000  
DOCKET # 263950US0 PCT  
INV. Bertrand Bertin MOUROT et al.  
USPN 10/518,531  
Reply to O.A. DATED June 13, 2007  
NEW SHEET(S)

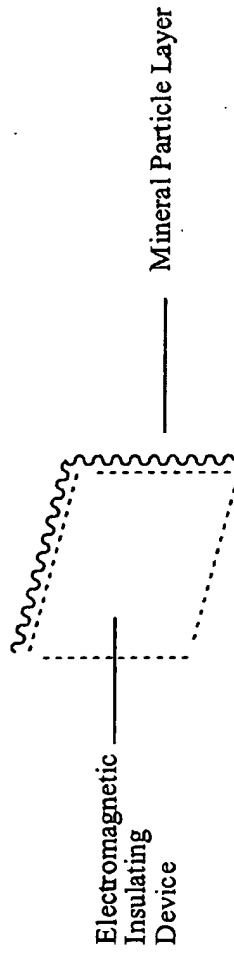


FIG. 1

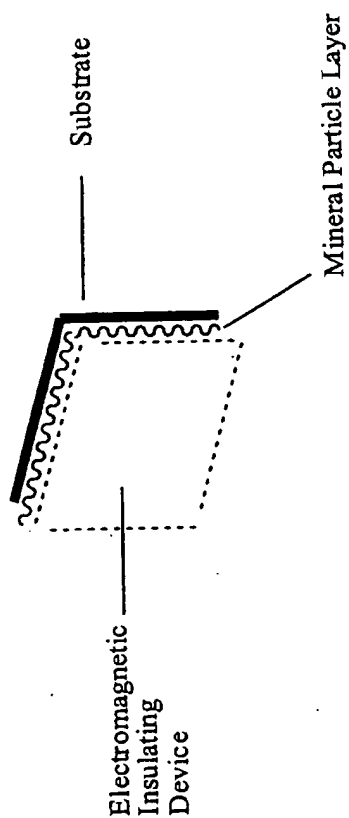


FIG. 2

*Zuby approved*  
*1/4/08*

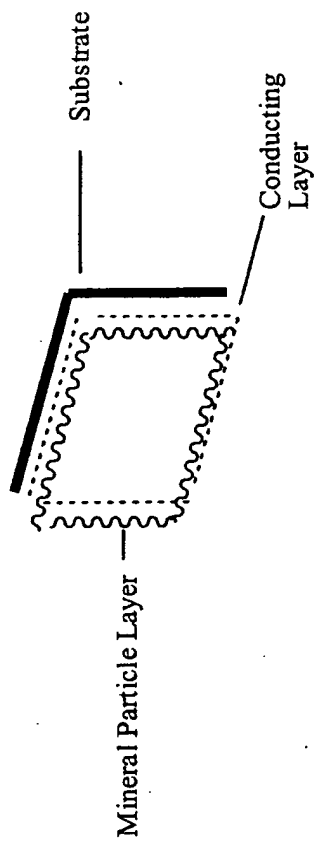


FIG. 3

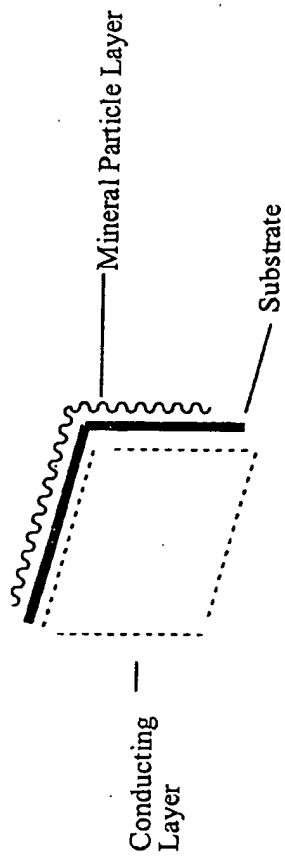


FIG. 4

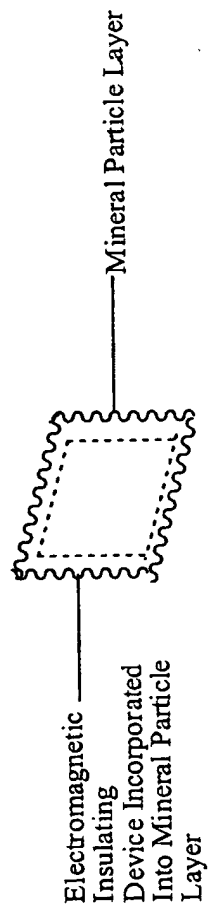


FIG. 5

*Embodiment  
1/4/08*

OBLON ET AL (703) 413-3000  
DOCKET # 263950US0 PCT  
INV. Bertrand Bertin MOUROT et al.  
USSN 10/518,531  
Reply to O.A. DATED June 13, 2007  
NEW SHEET(S)

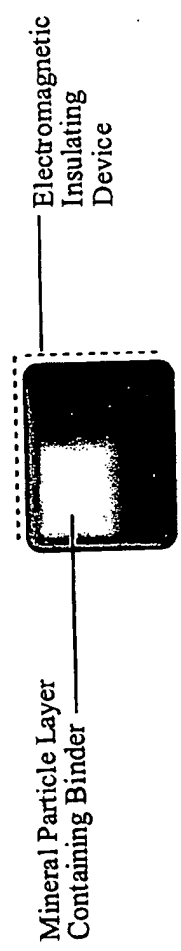


FIG. 6

*for my  
work  
1/9/08*

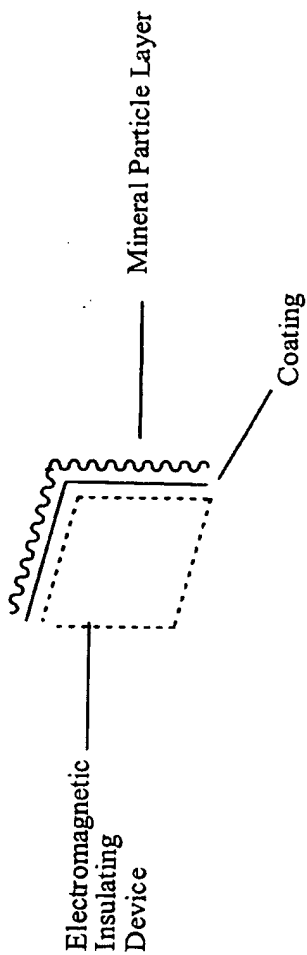


FIG. 7

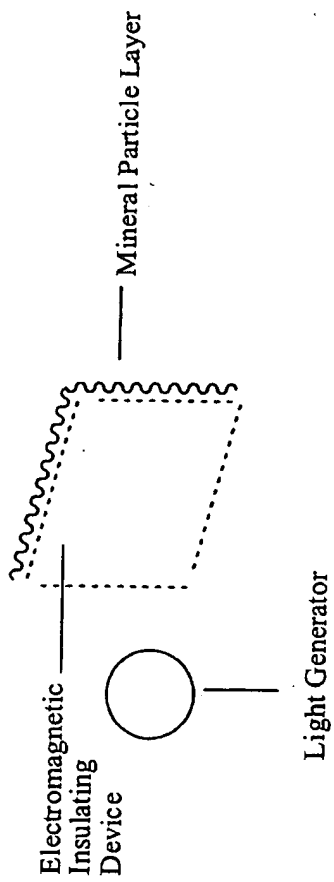


FIG. 8